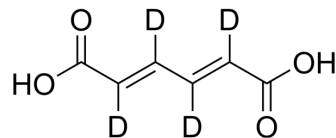


trans-trans-Muconic acid-d₄

Cat. No.:	HY-113247S
CAS No.:	1955496-83-9
Molecular Formula:	C ₆ H ₂ D ₄ O ₄
Molecular Weight:	146.13
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	trans-trans-Muconic acid-d ₄ is the deuterium labeled trans-trans-Muconic acid[1]. trans-trans-Muconic acid is a urinary metabolite of benzene and has been used as a biomarker of exposure to benzene in human[2].
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.
- [2]. Bartczak A, ET AL. Evaluation of assays for the identification and quantitation of muconic acid, a benzene metabolite in human urine. *J Toxicol Environ Health*. 1994 Jul;42(3):245-58.

Caution: Product has not been fully validated for medical applications. For research use only.

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